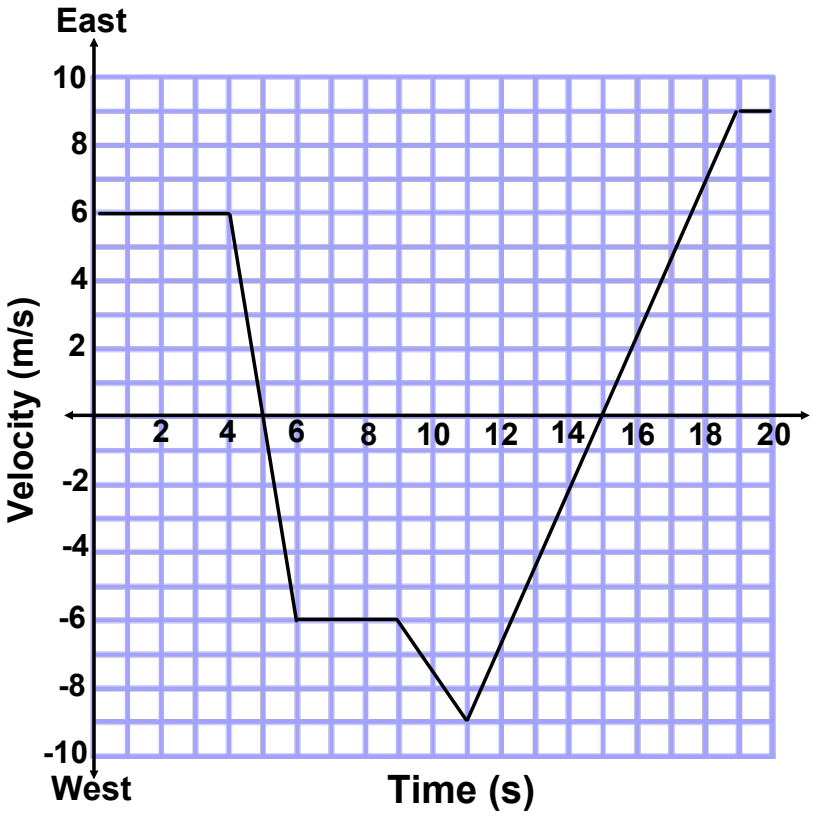
Velocity - Time: Course Review #2



1. What is the instantaneous velocity at the 11 second mark?

2. At what time(s) did the object change direction?

3. Calculate the distance traveled during the first 5 seconds. (27 m)

4. During what time interval(s) was the acceleration opposite the direction of motion?

5. Calculate the distance traveled between 11 and 19 seconds. (45 m)

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6. Calculate the acceleration at 4.5, 8 and 13.5 seconds. (-6 m/s^2; 0 m/s^2; 2.25 m/s^2)

7. Calculate the total distance traveled during the 20 seconds. (111 m)

8. Calculate the position of the object at the 20 second mark. (-3 m)

9. Calculate the average speed and velocity for the full 20 seconds. (5.6 m/s; -0.15 m/s)

10. Assume the object started at position (0,0). Without extensive calculations, estimate at what point in time the object had instantaneously returned to its starting position. (~ 10s)

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